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The relationship between a student teacher's dogmatism and his evaluation of himself and his supervising teacher was investigated to determine whether or not this researcher's earlier findings were generalizable. From a sample of 128 elementary school student teachers, those who scored in the upper 25 percent and those who scored in the lower 25 percent on the Dogmatism Scale (Form E) were identified as the study population. Each subject taught for 8 weeks and then rated himself and his supervising teacher on teaching effectiveness with the Teaching Inventory Form, described himself with the Teacher Personal Characteristics Inventory (TPCI), and selected from the TPCI the five characteristics most essential to effective teaching. Analysis of data significantly supported the hypotheses that closed-minded (more dogmatic) student teachers would rate themselves higher and their supervisors lower on teaching effectiveness and would describe themselves in more positive terms and with less variability than would open-minded (less dogmatic) student teachers. Evidence also supported the hypothesis that open- and closed-minded student teachers would not differ significantly in their selection of essential teaching characteristics. The results indicate that ratings of self and superordinates are, in some respects, a function of the perceptual-cognitive style of the rater. (LP)

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# PERCEPTUAL-COGNITIVE STYLE AS RELATED TO SELF-EVALUATION AND SUPERVISOR RATING BY STUDENT TEACHERS

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# PERCEPTUAL-COGNITIVE STYLE AS RELATED TO SELF-EVALUATION AND SUPERVISOR RATING BY STUDENT TEACHERS*

Research in the area of social perception has pointed to the relationship between certain personal characteristics and the perception and cognition of others (Bieri, 1955; Bruner and Tagiuri, 1954; Cantril, 1957; Erickson, 1962; Frenkel-Brunswik, 1949; and Heider, 1958). Several studies have identified the effects of certain personal characteristics on judgments of others (Dailey, 1952; Hastorf, et al, 1958; Luchins, 1944; Rokeach, 1948, 1949, 1950; Sorkin, 1953; and Taft, 1955). Other studies have dealt more specifically with the influence of dogmatism on the perceptual-cognitive style affecting judgments of others (Costin, 1965; Jones, 1954; Kemp, 1963; Miller, 1965; Musella, 1967; Plant, et al, 1965; Robkin, 1966; Rokeach, 1960; and Vidulich and Kaiman, 1961).

An earlier study by this researcher provided evidence supporting the effect of dogmatism on the description and rating of elementary school teachers by elementary school principals (Musella, 1967).

The present study represents an effort to provide additional information related to (1) the relationship between dogmatism and self-evaluation in teaching, and (2) the relationship between dogmatism and the evaluation of supervising personnel.

While the results of the earlier study were clear and unambigious, the limitation of sample (elementary teachers and administrators) raises questions about the generality of the findings. The present study constitutes a partial replication, aimed primarily at determining whether the inter-relationships emerge under different conditions, with different populations, and with an additional supportive measurement device.

## Hypotheses

A review of literature and of the previous work in this area by this researcher produced the following hypotheses:

(1) closed-minded student teachers would tend to rate themselves higher in teaching than would open-minded student teachers;

(2) closed-minded student teachers would tend to rate supervising teachers lower in teaching than would open-minded student teachers;

(3) closed-minded student teachers would tend to describe themselves in more positive terms than would open-minded student teachers;

(4) closed-minded student teachers would tend to display less differentiation and variability in their descriptions of teaching than would open-minded student teachers;

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*CCRE is pleased to bring you this paper. The ideas expressed are those of the author.

(5) both groups of student teachers would tend to select identical characteristics considered essential for effective teaching.

## Methods

### Sample

The sample was composed of 128 student teachers enrolled at State University College at Cortland, New York. Each student teacher was assigned for one eight-week period to one of 16 supervising teachers in the Campus-Laboratory School. In most cases, the student teachers were selected by the supervising teachers on the basis of the initial teaching experience provided for each college student during the previous year. These students were considered, by the supervising teachers, to be potentially above-average student teachers.

The total sample consisted of 32 male and 96 female students who were enrolled in the elementary education program during their junior year of college. The supervising teacher group was comprised of 5 male and 11 female teachers of grades nursery through 6. All supervising teachers were full-time professional staff assigned to the laboratory school.

From this sample, two groups were identified: the upper 25% scoring high in dogmatism (closed-minded student teacher -- CST), and the lower 25% scoring low in dogmatism (open-minded student teacher -- OST).

### Instruments

Three instruments were used in this study: (1) Dogmatism Scale (D scale--Form E); (2) Teacher Personal Characteristics Inventory (TPCI); and (3) Teaching Evaluation Form (TEF).

The D Scale was developed by Rokeach and his associates (Rokeach, 1960). As a partial validation of both the theory and scale, the investigators identified subjects who scored high on the D Scale (closed-minded subjects) and those scoring low on the scale (open-minded subjects) and subjected them to various tests, problems, and other analyses. In the samples used, the reliabilities ranged from .68 to .93.

The TPCI, developed by this researcher (Musella, 1967) is a modification of the rating scale developed by Ryans (1960); it is patterned after the semantic-differential scale of Osgood, et al. (1957). The TPCI consists of 23 pairs of polar terms, arrived at by means of the critical incident technique, which represent behaviors of the most effective and the least effective teachers. These characteristics were derived from over 500 critical incidents submitted by practicing administrators, teachers, practice-teachers, and college teachers.

The TEF, developed by this researcher (Musella and Rusch, 1968), is a modification of the rating scale developed by Riley, et al. (1950). This scale consists of 15 items to be responded to by a numerical expression of one of 6 degrees of effectiveness. In addition, most effective and least effective teaching qualities are selected as descriptive of the teacher being rated.

## Procedure

Student teachers were assigned to the Campus-Laboratory School for a period of 10 weeks. The specific assignment was based on the interests of the college students (their requests) and the approval of the supervising teacher to whom they were assigned.

During the first week of the student teaching assignment, each student teacher completed the D Scale. After the conclusion of this 8-week teaching experience, and after the superivsor had submitted final grades, each student teacher was asked to (1) rate the supervising teacher on teaching (not supervision) using the TEF, (2) rate himself/herself on teaching on the identical scale--TEF, (3) describe himself/herself on the TPCI, and (4) select, from the list of positive traits on the TPCI, the five characteristics most essential to effective teaching.

The controls inherent within the study were as follows:

(1) all student teachers spent a relatively equal amount of time in immediate contact with each supervisor; the situation was such that both the supervisor and student taught the same class every day; each had ample opportunity to observe each other's teaching in the self-contained classroom setting;

(2) all student teachers had similar formal educational experiences; all were elementary education majors in their 3rd year at the same college;

(3) all assignments were based on the choice of both the student teacher and the supervising teacher;

(4) none of the student teachers had any previous formal teaching experience; and

(5) there were no significant differences between the male and female student teachers on the accumulative average grade point at the end of the previous academic year. (See Table 1)

## Results

A summary ofdata received from the 4 scales -- D Scale, TPCI, $TEF_s$ (self), and $TEF_{sp}$ (supervising teacher), indicate no significant differences between male and female students on any of the scales. (See Table 1) Therefore, the total student teacher group can be considered a relatively homogeneous sample in terms of sex differences related to behavior on the scales and to success in college.

The statistical results as provided in Tables 2, 3 and 4 are summarized as follows:

(1) closed-minded student teachers (CST) rated selfs <u>higher</u> on teaching effectiveness than did open-minded student teachers (OST) (Table 2);

(2) CST rated supervisors lower on teaching effectiveness than did OST (Table 2);

(3) CST described themselves in more positive terms (high rating scores) than did OST (Table 3);

(4) CST displayed less variability in their descriptions of self than did OST (Table 3);

(5) CST and OST did not differ significantly in the selection of five characteristics most essential to effective teaching; CST selected (a) stimulating, (b) responsible, (c) systematic, (d) confident, and (e) fair; OST selected (a) responsible, (b) confident, (c) stimulating, (d) adaptable, and (e) understanding. The correlation between groups was a highly positive one (.91) (See Table 4)

Table 1

Comparison of Scores Between Male and Female Student Teachers

| | Male | Female | Total |
|---|---|---|---|
| Number | 32 | 96 | 128 |
| **D Scale** | | | |
| Range | 81 - 189 | 90 - 195 | 81 - 195 |
| Mean | 141.7 | 140.8 | 144.4 |
| S.D. | 24.1 | 22.5 | 21.7 |
| not significant | | | |
| **TPCI** | | | |
| Range | 82 - 130 | 88 - 158 | 82 - 158 |
| Mean | 122.4 | 120.3 | 124.2 |
| S.D. | 23.6 | 21.9 | 22.1 |
| not significant | | | |
| **TEFs** | | | |
| Range | 29 - 86 | 31 - 82 | 29 - 86 |
| Mean | 62.7 | 60.0 | 61.1 |
| S.D. | 8.1 | 9.5 | 9.2 |
| not significant | | | |

Table 1(cont'd.)

| | | | |
|---|---|---|---|
| | $TEF_{sp}$ | | |
| Range | 41 - 80 | 45 - 90 | 41 - 90 |
| Mean | 70.5 | 72.9 | 72.7 |
| S.D. | 8.4 | 9.2 | 9.3 |
| not significant | | | |
| | AGP* | | |
| Range | 2.0 - 3.1 | 2.0 - 3.5 | 2.0 - 3.5 |
| Mean | 2.9 | 3.1 | 2.8 |
| S.D. | .5 | .6 | .4 |
| not significant | | | |

*Accumulative Average Grade Point. Students with less than 2.0 at the end of the sophomore year were not permitted to student teach (department policy).

Table 2

Comparison of $TEF_s$ Scores Between CST and OST

| | CST | OST |
|---|---|---|
| Range | 39 - 86 | 31 - 82 |
| Mean | 71.3 | 62.4 |
| S.D. | 7.6 | 8.2 |
| n | 32 | 32 |
| t = 1.99; significant at .05 | | |

Comparison of $TEF_{sp}$ Scores Between CST and OST

| | CST | OST |
|---|---|---|
| Range | 41 - 82 | 51 - 86 |
| Mean | 62.3 | 79.5 |
| S.D. | 8.4 | 8.9 |
| n | 32 | 32 |
| t = 2.23; significant at .05 | | |

Table 3

Comparison of TPCI Scores Between CST and OST

| | CST | OST |
|---|---|---|
| Range | 105 - 158 | 91 - 158 |
| Mean | 140.4 | 129.6 |
| S.D. | 15.0 | 15.3 |
| dif | 31 | 31 |

t = 3.87; significant at .01 level

Item Scores

| | | |
|---|---|---|
| Range | 3 - 6 | 2 - 6 |
| Mean | 5.71 | 6.29 |
| S.D. | .27 | 1.11 |
| Var. | .081 | 1.152 |
| d.f. | 31 | 31 |

F = 10.39; significant at .01+ level

Table 4

Comparison of Characteristics Selected By CST and OST

| Characteristics | No. CST | No. OST |
|---|---|---|
| Stimulating | 6 | 5 |
| responsible | 5 | 7 |
| systematic | 5 | 1 |
| confident | 4 | 5 |
| fair | 4 | 2 |
| democratic | 2 | 1 |
| understanding | 2 | 4 |
| active | 1 | 1 |
| adaptable | 1 | 5 |
| optimistic | 1 | 0 |
| original | 1 | 1 |
| permissive | 1 | 0 |
| responsive | 1 | 0 |
| alert | 0 | 0 |
| altruistic | 0 | 0 |
| attractive | 0 | 0 |
| broad | 0 | 0 |
| integrated | 0 | 0 |
| kindly | 0 | 0 |
| poised | 0 | 0 |
| positive | 0 | 0 |
| relative | 0 | 0 |
| steady | 0 | 0 |

r = .91 (Spearman rho)

## Discussion, Conclusions and Implications

The results support the hypotheses in this study, as well as the results of the previous study by this researcher (Musella, 1967). These results indicate that the rating of one's teaching, which may be considered a manifestation of the evaluation of self in total, and rating of one's superordinates is, in some respects, a function of the perceptual-cognitive style of the rater. It is indicated further that rating results could be reliably predicted from the theoretical development of Rokeach's investigations on individual personality. Not only did the findings lend support to the Rokeach theory, but also they suggested that personal characteristics of the rater are related to the rating of teaching, both of one's self and of one's supervisors. On the basis of the evidence cited, real differences are discerned between predominantly open and predominantly closed student teachers in their rating and description of teaching effectiveness. Of course, it is possible that the differences could be the result of differences in individuals, especially since the subjects had no previous teaching experience upon which to base judgments. However, similar results were found with experienced principals and teachers (Musella, 1967). Furthermore, it was found that differences existed between open and closed student teachers in the description of self on the TPCI. Closed subjects displayed less differentiation and variability in their descriptions. They tended to see themselves in completely positive terms, whereas the open subjects pointed to both positive and negative characteristics in their descriptions of self.

No significant differences were found in the selection of characteristics considered to be most necessary for effective teaching. In supporting this finding, one might speculate that the exposure to the "desired traits" provided students in the literature and in the language of the college classroom provides a ready list that can be used to characterize the ideal teacher. However, this latter point is one worthy of further study.

The implications of this study bear direct relevance to existing theories of perceptual-cognitive style and to theories which employ a social-psychological orientation to interpersonal relations (especially interpersonal perception) in a social and organizational context. The importance of personal characteristics becomes apparent in the examination of other forms of decision-making at all levels of formal and informal superordinate-subordinate role relationships.

The limitations of this study are readily apparent in terms of population size, population characteristics, measurement devices, and the quantity and quality of interpersonal contact. Replication of results must emphasize considerable control on the above-mentioned variables, especially the interpersonal contact. In addition, improvement of the measures of teacher rating is essential in order to identify more specific aspects of teaching. The measurement devices employed in this study were restricted to "global" definitions of teaching.

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